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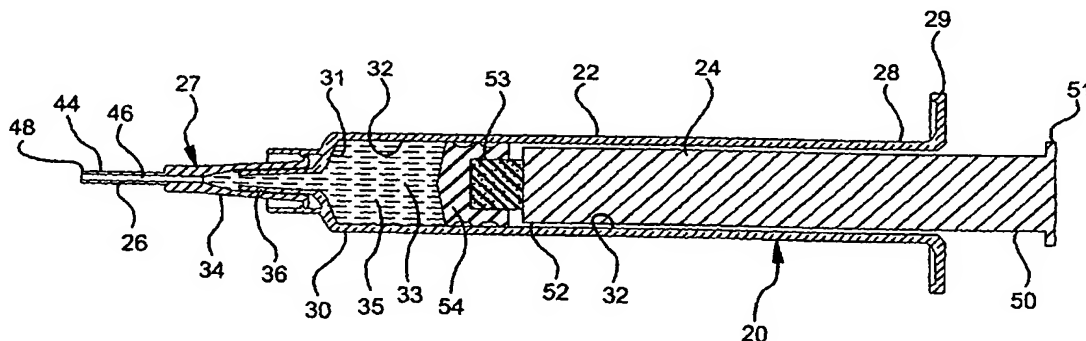
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(54) Title: FLUSH SYRINGE HAVING COMPRESSIBLE PLUNGER



(57) Abstract: An I.V. flush syringe assembly includes a barrel 22 having an inside surface 32 defining a chamber 33 for retaining fluid, an open proximal end 28 and a distal end 30 with a passageway 38 therethrough in fluid communication with the chamber 33. An elongate plunger 24 having a proximal end 50, a distal end 30 and a stopper 54 is slidably positioned in fluid-tight engagement with the inside surface 32 of the barrel 22 for drawing fluid into and out of the chamber by movement of the stopper 54 relative to the barrel 22. The plunger 24 includes anti-reflux structure for minimizing stopper deflection when fluid has been delivered from the chamber 33 and the stopper 54 is being forced against the distal end 30 of the chamber.

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WO 2004/033006 A3

# INTERNATIONAL SEARCH REPORT

International Application No

P 03/29725

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61M5/315

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 44 23 753 C (SCHERING AG) 1 February 1996 (1996-02-01)  column 2, line 56 - line 60 column 5, line 19 - line 51 column 8, line 38 - line 40 figure	1-3, 5-8, 10-14, 16, 17
Y	-----	4, 9, 15
Y	GB 611 290 A (SAMUEL JAMES EVERETT) 27 October 1948 (1948-10-27) page 2, right-hand column, line 73 - line 79 figure 2	4, 9, 15
X	US 4 340 051 A (LEIBINSOHN SAUL) 20 July 1982 (1982-07-20) figures 1-4	1
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

national Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 3 669 111 A (DUBNER BEN B)  13 June 1972 (1972-06-13)  figures 5-7</p> <p>-----</p>	1

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 03/29725

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 18, 19  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

US 03/29725

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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